

REMARKS

The Official Action of 9 October 2007 has been carefully considered and reconsideration of the application as amended is respectfully requested.

The courtesy of Examiner Hook in discussing this application with the undersigned by telephone on 7 November 2007 is gratefully acknowledged. In response to the undersigned's inquiry, the examiner advised that, as noted in the "Office Action Summary", the Official Action is not final, and that the statement on page 7 as to finality was an inadvertent error.

Claims 1 and 8 have been amended to conform the claims to the Example in the specification as discussed below.

The claims stand rejected under 35 USC 103(a) as allegedly being unpatentable over Tanaka in view of Venkataswamy and Ohmae or over this combination of references further in view of Kito. Applicant respectfully traverses these rejections.

The claimed invention is based at least in part upon Applicant's discovery of the **criticality** of forming the recited impact resistant layer in the claimed manner and with the respective amounts of the first material (A) and second material (B) and the thickness of the claimed layer being within the recited limits. This is shown in the Examples appearing in the specification at pages 6-8 and Fig. 6, as next discussed.

In the Examples, resin tubes of an Example according to the claimed invention

as well as resin tubes of Comparative Examples 1-5 are described in the specification at page 6, line 18 to page 7, line 10, and Fig. 6. As can be seen, only the resin tubes of the Example have an impact-resistant layer with the recited first and second materials in respective amounts as claimed. The impact-resistant (outermost) layer of the resin tubes of the Comparative Examples 1-5 either have polyamide 11 resin combined with a plasticizer (Comparative Examples 1 and 2) or a composite resin prepared by adding an olefin elastomer to polyamide 11 resin without separate mixing of first and second materials as claimed (Comparative Example 3) or a composite material prepared by mixing the second material in the first material in weight ratios outside of those claimed (see Fig. 6).

Each of the resin tubes of the Example and the Comparative Examples 1-5 were prepared with the impact-resistant layers having a thickness of 1.0mm, 0.9mm, 0.8mm, 0.7mm and 0.6mm respectively (see Fig.6) and each of these resin tubes were subjected to a cold impact test, wherein a weight of 450g and a weight of 900g were dropped from a height of 300mm onto the resin tube after keeping the resin tube in an atmosphere of -40°C for 5 hours and the resin tubes were then examined visually for cracks (see specification at page 7, lines 11-17). The results of the test are described in Fig. 6, wherein crosses indicate those resin tubes in which cracks developed and circles indicate those resin tubes in which cracks did not develop.

As can be seen from Fig. 6, the Examples according to the claimed invention, comprising an impact resistant layer formed from a mixture of 25 to 35% by weight of a previously prepared composite PA 11 resin (second material B) with a previously

prepared PA 11 resin (first material A), had greater impact resistance than (1) the impact resistant layer formed, for example, from the second material (B) alone at a thickness in the range of 0.7 to 0.9mm (compare Comparative Examples 3 and 6 in Fig. 6), and (2) the impact resistance layers formed by a mixture of the composite PA 11 resin (second material B) in higher weight ratios with respect to the PA 11 resin (first material A) in the recited range of thickness (compare Comparative Examples 4 and 5 with Examples 6 in Fig. 6). The Examples in the specification thus establish the criticality of the claimed formation process and the result-effective nature of the claimed variables.

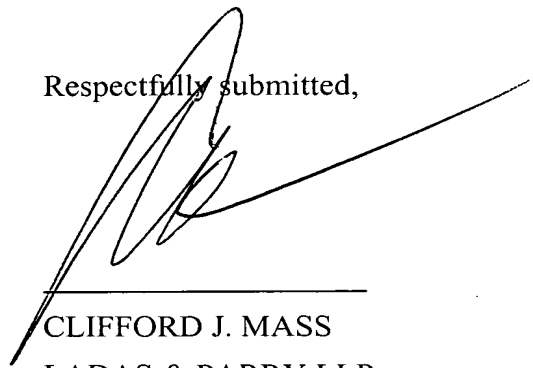
In contrast, the cited references do not show or suggest that the claimed method of forming the recited impact resistant layer would result in the layer having greater impact resistance or the result effective nature of the recited variables. In the conventional case, polyamide 11 resin would be mixed with olefin elastomer directly to form the impact-resistant layer. Indeed, there is nothing in the cited references that would show or suggest that the second material (B) should be separately prepared and then mixed with the first material (A). Moreover, there is nothing in the cited references to show or suggest the criticality of the claimed amounts of the respective components or the claimed thickness.

In the absence of anything in the cited references to show or suggest the criticality of the claimed parameters, Applicants respectfully submit that the evidence in the specification is probative of the nonobviousness of the claimed invention and sufficient to rebut any alleged *prima facie* case of obviousness set forth by the cited art.

See MPEP 2144.05(III) (“Applicants can rebut a *prima facie* case of obviousness based on overlapping ranges by showing the criticality of the claimed range. ‘The law is replete with cases in which the difference between the claimed invention and the prior art is some range or other variable within the claims. . . . In such a situation, the applicant must show that the particular range is critical, generally by showing that the claimed range achieves unexpected results relative to the prior art range.’ *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990).”). This is particularly true in the present case, wherein it would not have been expected that a combination of all of the recited parameters would have to be met in order to get an impact-resistant layer with the best results as claimed or that an impact-resistant layer having a **greater** thickness than that claimed could be **less** effective.

In view of the above, Applicant respectfully submits that the rejections and objections of record have been overcome and that the application is now in allowable form. An early notice of allowance is earnestly solicited and is believed to be fully warranted.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Clifford J. Mass', is written over a horizontal line. The signature is stylized with a large, sweeping initial 'C' and 'M'.

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